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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,909	02/20/2002	Christoph Schwemler	Mo6846/LeA 33,663	8764

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BAYER POLYMERS LLC
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EXAMINER

PHASGE, ARUN S

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 07/02/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,909

Applicant(s)

SCHWEMLER ET AL.

Examiner

Arun S. Phasge

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shigeniwa et al. (Shigeniwa), Japan 06-269786 A.

Shigeniwa discloses the claimed method for the treatment of water having the TOC and containing carbonic acid with ozone, wherein the treatment occurs at a temperature range, pressure range and pH value range and time period which falls within the claimed values (see translation of the claims and pages 2-3). The reference further the relationship between pH and the amount of ozone added as well as the amount of the TOC (see bottom of page 3).

Therefore, since the Shigeniwa patent discloses each and every limitation, the claims are anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obvious rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigeniwa applied as above and further in view of Sanyo, Japanese patent 05-269469 A.

The Shigeniwa patent does not address the amount of chloride in the water, although the reference does disclose the use of tap water or raw water (see bottom of page 3). The Sanyo patent is cited to show that tap water would have to have chloride within the claimed ranges to form an effective amount of chlorine (see claims 1-2 machine translation).

Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made that the tap water would have chloride within the claimed range, because the Sanyo patent teaches that tap water does contain that amount.

The reference does not disclose that the water is the wastewater from a bisphenol A polycarbonate product facility. The invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to use the process disclosed in the Shigeniwa reference, because the wastewater being treated contains essentially the same composition as the raw water treated in the Shigeniwa reference.

Claims 3-4, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigeniwa as applied to claims above, and further in view of Bennett et al. (Bennett), U.S. Patent 4,085,015 or Mucenieks, U.S. Patent 4,323,437.

The Shigeniwa patent does not disclose the use of the treated water in the electrolysis of the water to form chlorine in a membrane cell.

The Bennett patent is cited to show the use of a brine (salt containing water) that has been oxidized by the addition of an oxidant (such as the claimed ozone) in a membrane cell to form chlorine (see Abstract and col. 1, lines 60-68).

Therefore, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to use the oxidized purified water of Shigeniwa in the divided cell electrolyzer to form chlorine, because the Bennett patent teaches that the use of oxidation purified water is beneficial in the formation of chlorine.

The Mucenieks patent, likewise, shows the use of a brine (salt containing water) that has been oxidized by the addition of an oxidant in a membrane cell to form chlorine and hydroxide (see abstract and claims 1-12).

Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to use the oxidized

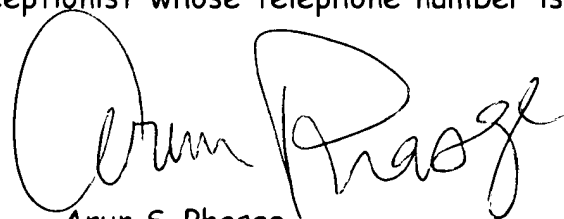
water of Shigeniwa patent in the electrolyzer of Mucenieks, because the Mucenieks patent teaches the beneficial use of water to form chlorine that has been oxidized to remove contaminants.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (703) 308-2528. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Arun Phasge', written in a cursive style.

Arun S. Phasge
Primary Examiner
Art Unit 1753

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June 25, 2003